

REMARKS

The Office Action dated May 16, 2005, has been received and carefully noted. The above amendments and the following remarks are submitted as a full and complete response thereto.

By this Amendment, claim 5 has been canceled and claim 1 amended. No new matter has been added. The amendments to claim 1 are for purposes of readability only. Claims 1-4 and 6 are pending and respectfully submitted for consideration.

Claims 1-6 were rejected under 35 U.S.C. § 112, second paragraph, as being indefinite. The Applicants have amended claim 1 responsive to the rejection. The Office Action also indicated that claims 4 and 5 were duplicate. In this regard, the Applicants have deleted claim 5.

Claims 1-6 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Allen et al. (U.S. Patent No. 3,087,807, "Allen"). The Applicants traverse the rejection and respectfully submit that claims 1-4 and 6 recite subject matter that is neither disclosed nor suggested by Allen.

As a preliminary matter, the Applicants note that the Office Action dated May 16, 2005, is a substitute for the Office Action dated April 21, 2005. The May 16, 2005 Office Action states that the difference between the claims and Allen et al. (U.S. Patent No. 3,087,807, "Allen") is that Allen teaches placing the compact in a hollow structure to envelop the compact, while the claims of the present application recite attaching the compact to one side face of a metallic flat plate and then plastic deforming the metallic flat plate in such a way as to envelop the compact.

Allen discloses a foamed-metal structure and method of making such structure including making foamed-metal structures wherein a gas-forming material is embedded in a metal matrix, and the matrix is thereafter heated and a gas is released to provide foam. In Allen, a powdered structural metallic material is thoroughly mixed with a powdered gas-forming material. This material releases a substantial amount of gas at about the melting temperature of the powdered metal. The mixture is then extruded after being cold compacted under sufficient heat and pressure to consolidate the metal of the mixture and leave the resulting gas-forming material embedded in the resulting metal matrix. The extruded material is then heated in a controlled manner to at least the melting point of the structural metal material so as to produce a foam.

With respect to claim 1, the Applicants respectfully submit that Allen fails to disclose or suggest the claimed features of the invention. Claim 1, as amended, recites attaching the obtained foaming-agent compact to one of side faces of a metallic flat plate. Allen does not disclose or suggest at least the step of attaching, as recited in claim 1.

In addition, claim 1, as amended, recites plastic-deforming the metallic flat plate in such a way as to envelope the compact, and obtaining a closed section structure. In contrast, Allen does not disclose or suggest the step of plastic-deforming a metallic flat plate. Allen merely discloses that a thin metal container may be used to contain the foam, and that the thin metal container can be a thin aluminum tube, a carbon steel tube, or a stainless steel tube. See col. 4, lines 52-62 of Allen. Allen does not disclose or suggest that the tube is formed by being plastic-deformed around an attached

foaming-agent compact. Therefore, Allen fails to disclose or suggest the features of the invention as recited in claim 1.

The Office Action acknowledged that the difference between the prior art and the claimed invention lies in the step of producing a metal enveloped compact, and that Allen does not disclose or suggest attaching the obtained foaming-agent compact to one of side faces of a metallic flat plate. and took the position that the claimed method is an alternate method for making a metal enveloped compact and would have been obvious to one skilled in the art unless there is evidence indicating that the claimed method of producing the metal enveloped compact is critical. See page 3, lines 13-15 of the Office Action. Thus, the Office Action acknowledged that Allen does not disclose the claimed features of the invention.

The Office Action also took the position that where patentability is said to be based upon particular features recited in the claim, the Applicant must show that the chosen features are critical. The Office Action cited In re Woodruff, 919 F.2d, 1575, 1578, 16 USPQ2d, 1936 (Fed. Cir. 1990) for supporting this statement.

However, The Applicants submit that the Office Action misapplied In re Woodruff to the present application, and erroneously re-phrased the text of the case in making the obviousness rejection of claim 1. Specifically, In re Woodruff is directed to the obviousness of ranges. The holding in In re Woodruff is that where, ". . . the difference between the claimed invention and the prior art is some range or other variable within the claims. . . in such a situation, the Applicant must show that the particular range is critical, generally by showing that the claimed range achieves unexpected results

relative to the prior art range." (Emphasis added). See In re Woodruff at 1578. See also, M.P.E.P. § 2144.05 (III).

In contrast, claim 1 recites method steps and does not recite a range. Thus, the Applicants submit that In re Woodruff does not apply to the claims of the present application, does not support the position set forth in the Office Action, and that the language in the Office Action not an accurate representation of the holding of In re Woodruff.

The Office Action stated the Applicant must show that the chosen features are critical. Claims 1-6 were rejected as obvious under 35 U.S.C. § 103(a). Patentability requires that the invention be novel and non-obvious. There is no requirement under U.S. patent practice that the Applicant show that any of the method steps in claim 1 is critical. Thus, the Applicants are not required to show that the features recited in the method steps of claim 1 are critical.

Under U.S. patent practice, the PTO has the burden under §103 to establish a *prima facie* case of obviousness. In re Fine, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988). Both the case law of the Federal Circuit and the PTO itself have made clear that where a modification must be made to the prior art to reject or invalidate a claim under §103, there must be a showing of proper motivation to do so. The mere fact that a prior art reference could arguably be modified to meet the claim is insufficient to establish obviousness. The PTO can satisfy this burden only by showing some objective teaching in the prior art or that knowledge generally available to one of ordinary skill in the art would lead that individual to combine the relevant teachings of the references. Id. In order to establish obviousness, there must be a suggestion or motivation in the

reference to do so. See also In re Gordon, 221 USPQ 1125, 1127 (Fed. Cir. 1984) (prior art could not be turned upside down without motivation to do so); In re Rouffet, 149 F.3d 1350 (Fed. Cir. 1998); In re Dembiczak, 175 F.3d 994 (Fed. Cir. 1999); In re Lee, 277 F.3d 1338 (Fed. Cir. 2002). The Office Action restates the advantages of the present invention to justify the combination of references. There is, however, nothing in the applied references to evidence the desirability of these advantages in the disclosed structure.

For at least the combination of foregoing reasons, the Applicants respectfully submit that Allen fails to disclose or suggest the present invention as claimed in claims 1-4 and 6. As such, the Applicants respectfully submit that the Office Action has failed to establish a *prima facie* case of obviousness for purposes of a rejection of claims 1-4 and 6 under 35 U.S.C. §103.

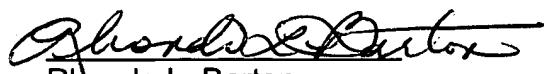
Claims 2-4 and 6 depend from claim 1. The Applicants respectfully submit that these dependent claims are allowable at least because of their dependency from allowable base claim 1. Accordingly, the Applicants respectfully request withdrawal of the rejections, allowance of claims 1-4 and 6, and the prompt issuance of a Notice of Allowability.

Should the Examiner believe anything further is desirable in order to place this application in better condition for allowance, the Examiner is requested to contact the undersigned at the telephone number listed below.

In the event this paper is not considered to be timely filed, the Applicants respectfully petition for an appropriate extension of time. Any fees for such an extension, together with any additional fees that may be due with respect to this paper,

may be charged to counsel's Deposit Account No. 01-2300, referencing Attorney Dkt. No. 107355-00105.

Respectfully submitted,



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